

TECHNOLOGY AND THE FUTURE SUPPLY CHAIN

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With increased pressure on margins, the New Year is likely to see business leaders relying heavily on the supply chain management function to help reduce operating costs, improve profit margins and increase market share.

And technology is continuing to play a critical role to support these expectations. In fact, automation is already replacing manual counting, reconciliation, paperwork and data entry.

As technology further develops, new tools will increasingly assist business functions in supporting organisational safety and environmental goals in these times of climate change.

For example, future trends in supply chain management will be dominated by environmental compliance codes and practices such as GreenSCOR. The media's active role in creating awareness about environmental issues is likely to lead to environmentally conscious businesses in the future. Most business activities, if not all, will need to take into account their environmental impact.

Which explains why paperless supply chain activities will be the way forward. Elimination of paper documentation and a shift to electronic data generation and storage will be the key to business success.

An example of this would be PDAs mounted in vehicles to provide electronic manifests and sign-on-glass capability, which in turn will help to eliminate or reduce manual back-office processing.

Linfox Solutions is one such organisation that is keen to adopt technology to provide paperless proof-of-delivery of pallets. Paperless delivery will benefit not only suppliers, but also logistics service providers and customers.

But that's not all. In the near future, focus is likely to shift to the adoption of common technologies like ERP (enterprise resource planning), optimisation of resources, and creating the ability to report on this to customers.

This covers not only how vehicles go about making deliveries but also ensuring that available space is being well utilised, says Colin Burrow, general manager information technology, 5Star FMCG Distribution Ltd. "With global standardisation of suppliers, customers are using the same transport provider in New Zealand as they do in Australia, for example."

This view is also shared by Xelocity – a consulting solutions company. Organisations tend to align to one major provider's technology roadmap, says Xelocity's senior supply chain consultant, Ikhlaq Kashkari. "Niche players have to become very specialised to provide differentiation." This is because top-end technology providers are aiming to develop a full suite of solutions, and their customers want to avoid complicated integration requirements.

But we don't have to look too far to see what is driving these changes. The pressure is coming from the challenges facing the industry: shortage of labour and raw material, managing cost drivers, focusing on benefits tracking and adopting inventory control, to name a few. And then there are environmental and legal practices to think about, consolidation of organisations and technology providers, outsourcing, and the need to create greater financial transparency. Businesses are also required to obtain support from senior management for technology projects and leveraging existing technologies.

"Businesses are constantly driving to achieve a balance between performance and expenditure," says Mr Kashkari.

Supply chain managers are, therefore, likely to look for solutions to these while making decisions about their IT infrastructure. Their decisions will be influenced by retail customer initiatives regarding primary freight and factory gate pricing, says Geoff Harper, manager supply chain, Nestle New Zealand Ltd. He also identifies shortage of labour and environmental sustainability issues as two other drivers of change.

Interestingly, these trends are magnified by media and public awareness, which has placed immense pressure on the supply chain industry; and it'll come to influence the way business is conducted in future.

It is no surprise then that the ongoing global price pressure and low offshore labour costs are resulting in a requirement for critical mass and economies of scale. "Major influencers will be global environment pressures, a poor history of success of technology-based projects, organisations wanting to avoid complicated integration requirements and expensive support contracts, and the need to leverage outsourced relationships," says Mr Kashkari.

Truly, it is the case of survival of the leanest. Difficult trading conditions, shareholder demands on return on investment and realisation of synergies will change the course of supply chain business activities in future, according to Mr Burrow.

But what makes things further complicated is the fact that it is difficult to forecast whether investment in technology will generate high ROI for a business. Often, technology projects are capital-intensive, and returns become positive only over a long term. Alternatively, most system enhancements can yield high ROI only when they replace expensive labour cost.

Which means, skills shortage and higher labour costs are shifting the focus from ROI to opportunity cost of capital. Technology seems to be the business-owner's friend, at least for now.

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